

## **Westwood Chemical-New York**

### **Grass and Soil Samples**

(USEPA OSC Dilshad Perera selected the sample locations)

The site map at the end of this write up shows the locations of the soil, grass and monitoring well samples described below that were collected from the Westwood Chemical facility on 5/19-20/05. The DQO for the soil, grass and monitoring well samples is for investigative purposes and the results will be used for informational purposes. The designation for the samples is as follows:

WW = Westwood GS = Grass Sample MW = Monitoring Well SS = Soil Sample

## Composite Grass Sample (WWGS#1):

-There was a white dust that became airborne when the grass in the field across from the tank farm was lightly tapped. The composite grass sample was collected at 1500 on 5/19/05 from a 10 ft radius from the flag closest to MW #2. The grass above the soil surface was collected from several different areas and composited to form one sample. The roots/soil was cut off the grass so that just the blades of grass remained. The grass composite sample was then taken to the lab in the Westwood Chemical facility and three individual portions of grass were taken from the composite sample and cut into small pieces with a pair of scissors so that a more homogenized sample could be shipped to the analytical testing laboratory for analysis. Approximately the same amount of grass was selected from each of the three portions of grass to fill the sample jar. The laboratory was instructed to rinse out the sample jar and then combine the rinsate with the grass sample in order to ensure that any of the powder that might have adhered to the sample jar was included in the analysis.

#### Composite Soil Sample (WWSS#1):

- -Samples collected at 1600 on 5/19/05
- -Three surface soil samples were collected from 3 points (WWSS1A, WWSS1B, WWSS1C) selected by the OSC. The three individual soil samples were combined to form one composite sample. The three locations were marked with surveyor flags so that GPS reading could be taken at a later time to further delineate the sampling locations. The surface of the soil in a 1 ft radius around each sampling point was cleared of rocks and debris prior to the collection of the soil sample. The soil samples were collected down to a depth of approximately one inch. The soil composite sample was then taken back to the lab in the Westwood Chemical facility and screened through a one quarter inch plastic mesh screen to further remove and rocks and debris. Any rocks and debris that passed through the screen that could be visually seen were removed. The soil sample was then thoroughly homogenized prior to placing an aliquot of sample into a container to be shipped to the analytical laboratory for analysis.

#### Composite Soil Sample (WWSS#2):

-Samples collected at 1530 on 5/19/05

-Three surface soil samples were collected from 3 points (WWSS2A, WWSS2B, WWSS2C) selected by the OSC. The three individual soil samples were combined to form one composite sample. The three locations were marked with surveyor flags so that GPS reading could be taken at a later time to further delineate the sampling locations.

The surface of the soil in a 1 ft radius around each sampling point was cleared of rocks and debris prior to the collection of the soil sample. The soil samples were collected down to a depth of approximately one inch. The soil composite sample was then taken back to the lab in the Westwood Chemical facility and screened through a one quarter inch plastic mesh screen to further remove and rocks and debris. Any rocks and debris that passed through the screen that could be visually seen were removed. The soil sample was then thoroughly homogenized prior to placing an aliquot of sample into a container to be shipped to the analytical laboratory for analysis.

#### Composite Soil Sample (WWSS#3):

-Samples collected at 1530 on 5/19/05

-Three surface soil samples were collected from 3 points (WWSS3A, WWSS3B, WWSS3C) selected by the OSC. The three individual soil samples were combined to form one composite sample. The three locations were marked with surveyor flags so that GPS reading could be taken at a later time to further delineate the sampling locations. The surface of the soil in a 1 ft radius around each sampling point was cleared of rocks and debris prior to the collection of the soil sample. The soil samples were collected down to a depth of approximately one inch. The soil composite sample was then taken back to the lab in the Westwood Chemical facility and screened through a one quarter inch plastic mesh screen to further remove and rocks and debris. Any rocks and debris that passed through the screen that could be visually seen were removed. The soil sample was then thoroughly homogenized prior to placing an aliquot of sample into a container to be shipped to the analytical laboratory for analysis.

#### Discrete Soil Sample (WWSS#4):

-Sample collected at 1530 on 5/19/05

-A discreet soil sample (very muddy) was collected from 1 (WWSS4) point selected by the OSC. The location (at the end of a drainage pipe coming from the facility) was marked with a surveyor flag so that GPS reading could be taken at a later time to further delineate the sampling location. The surface of the soil in a 1 ft radius around each sampling point was cleared of rocks and debris prior to the collection of the soil sample. The soil sample was collected down to a depth of approximately one inch. The soil sample was then taken back to the lab in the Westwood Chemical facility and cleared of any rocks and debris. The soil sample was then thoroughly homogenized prior to placing an aliquot of sample into a container to be shipped to the analytical laboratory for analysis.

# **Westwood Chemical-New York**

### **Monitoring Well Samples**

### Equipment used: Solinst Model 122 Oil-Water Interface Probe Correction Factor of 0.2 taken into account

Monitoring Well #1 (WWMW1)		Units
Ground to Top of Well Casing	39	in
Top of Monitoring Well to Top of Well Casing	8	in
Top of Water Column from Top of well casing	6.31	ft
Bottom of Water Column from top of well casing	11.4	ft
Length of Water Column	5.09	ft
Volume of Water Column (5.09ft x 0.163 gal/ft)	0.82967*	gal
рН	6.5	Standard units
Temperature	10.2°	С

#### **Comments:**

- -Three well volumes of water was evacuated from the Monitoring Well (MW) by removing 12\*\* bailers of well water prior to sampling MW #1. The initial time of sampling was 1130 on 5/19/05 but the recharge of MW #1 was so slow that the sampling crew let the MW recharge overnight and sampled it at 0630 on 5/20/05.
- -Monitoring Well #1 was sampled at a depth of 133 inches.
- -Low Turbidity
- -Yellowish/Orange gelatin observed in water column.
- \*The amount of water in the MW #1 was rounded off to 1 gallon for calculation purposes.
- \*\* The assumption of 4 liters of water was equal to 1 gallon of water for the purpose of calculating the number of bailers of water that was needed to evacuate three well volumes of water from the MW (the bailer held 1 liter of water). In order to evacuate 1 gallon of water contained in the MW the sampling crew would need to remove 4 bailers of water from the MW.

Monitoring Well #2 (WWMW2)		Units
Ground to Top of Well Casing	29	in
Top of Monitoring Well to Top of Well Casing	4	in
Top of Water Column from Top of well casing	3.1	ft
Bottom of Water Column from top of well casing	23.11	ft
Length of Water Column	20.01	ft
Volume of Water Column (20.01ft x 0.163 gal/ft)	3.26163*	gal
рН	7	Standard units
Temperature	11°	C

#### Comments:

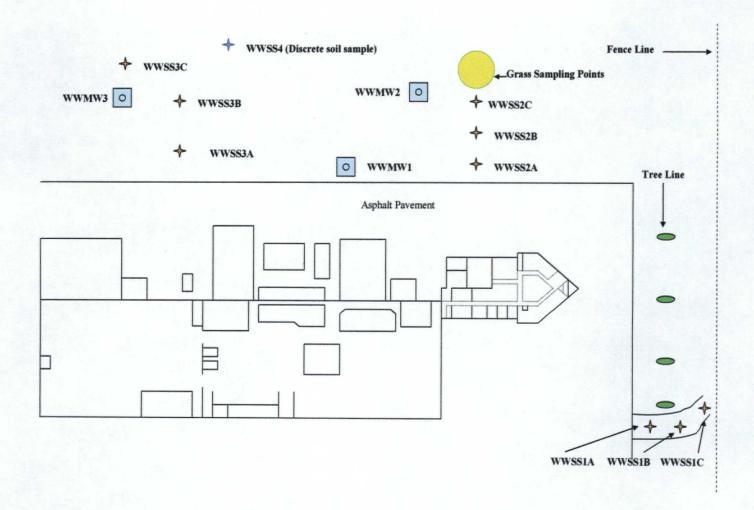
- -Three well volumes of water was evacuated from the MW by removing 40\*\* bailers of well water prior to sampling MW #2. Time of sampling was 1100 on 5/19/05.
- -Monitoring Well #2 was sampled at a depth of 217 inches.
- -High Turbidity
- \*The amount of water in the MW #2 was rounded off to 3 gallons for calculation purposes.
- \*\* The assumption of 4 liters of water was equal to 1 gallon of water for the purpose of calculating the number of bailers of water that was needed to evacuate three well volumes of water from the MW (the bailer held 1 liter of water). In order to evacuate 1 gallon of water contained in the MW the sampling crew would need to remove 4 bailers of water from the MW.

Monitoring Well #3 (WWMW3)		Units	
Ground to Top of Well Casing	45	in	
Top of Monitoring Well to Top of Well Casing	7	in	
Top of Water Column from Top of well casing	5.17	ft	
Bottom of Water Column from top of well casing	16.3	ft	
Length of Water Column	11.13	ft	
Volume of Water Column	1.81419*	gal	
pH	7	Standard units	
Temperature	10°	C	

#### Comments:

- -Three well volumes of water was evacuated from the MW by removing 24\*\* bailers of well water prior to sampling MW #3. Time of sampling was 1030 on 5/19/05.
- -Monitoring Well #2 was sampled at a depth of 189 inches.
- -High Turbidity
- For easy of filling the sample containers a clean beaker was used to pour the well water into that was bailed from the monitoring well. The sample containers were then filled from the beaker of well water. Upon completion of filling the sample containers the remaining well water was emptied from the beaker. The residual well water evaporated from the beaker and left a white residue in the bottom of the beaker.
- \*The amount of water in the MW #3 was rounded off to 2 gallons for calculation purposes.
- \*\* The assumption of 4 liters of water was equal to 1 gallon of water for the purpose of calculating the number of bailers of water that was needed to evacuate three well volumes of water from the MW (the bailer held 1 liter of water). In order to evacuate 1 gallon of water contained in the MW the sampling crew would need to remove 4 bailers of water from the MW.

## Sampling Locations (not to scale)



# GPS Readings for the Soil Sampling and Monitoring Well Locations

Name	lcon	Message	Latitude	Longitude	Altitude (ft)	Latitude (degrees)	Longitude (degrees)	Icon ID
	Crossed							
WWSS1A	THE PROPERTY OF THE PARTY OF TH		N41°28.108'	W74°22.702	640	41.46846667	74.37836667	а
WWSS1B	BOOKS HER CONTRACTOR C		N41°28.106'	W74°22.705'	676	41.46843333	74.37841667	а
	A STATE OF THE PARTY OF THE PAR							
WWSS1C	Square		N41°28.104'	W74°22.704'	669	41.46840000	74.37840000	а
	Crossed							
WWMW1	Square		N41°28.118'	W74°22.639'	610	41.46863333	74.37731667	а
	Crossed							
WWSS2A	Square		N41°28.114'	W74°22.637'	636	41.46856667	74.37728333	а
	Crossed							
WWSS2B	Square		N41°28.110'	W74°22.630'	650	41.46850000	74.37716667	а
	Crossed							
WWSS2C	Square		N41°28.105'	W74°22.621'	653	41.46841667	74.37701667	а
	Crossed							
WWMW2	Square		N41°28.107'	W74°22.615'	663	41 46845000	74 37691667	а
WWSS3A			N41°28.126'	W74°22 617'	669	41 46876667	74 37695000	а
	THE PARTY OF THE P				-	41.40070007	14.07000000	
WWSS3B			N41°28 123'	W74°22 600'	686	41 46871667	74 37666667	а
Marie Sant	Control of the Contro					41.40071007	14.57000007	
WWSS3C			N41°28 127'	W74°22 588'	660	41 46878333	74 37646667	а
			1177 20.127	1114 22.000	009	41.40070333	14.57040007	a
WWSS4			N41°28 122'	W74°22 5841	666	41 46870000	74 27625000	
	THE RESIDENCE OF THE PARTY OF T		1441 20.122	VV/4 22.301	000	41.40070000	14.37035000	а
WWMW3			N41°28 127'	W74°22 506'	660	41 46979333	74 37660000	а
	WWSS1A WWSS1B WWSS1C WWMW1 WWSS2A WWSS2B WWSS2C	WWSS1A Square Crossed WWSS1B Square Crossed WWSS1C Square Crossed WWMW1 Square Crossed WWSS2A Square Crossed WWSS2B Square Crossed WWSS2C Square Crossed WWSS3C Square Crossed WWSS3A Square Crossed WWSS3B Square Crossed WWSS3B Square Crossed WWSS3C Square Crossed WWSS4 Square Crossed	Crossed WWSS1A Square Crossed WWSS1B Square Crossed WWSS1C Square Crossed WWMW1 Square Crossed WWSS2A Square Crossed WWSS2B Square Crossed WWSS2C Square Crossed WWMW2 Square Crossed WWSS3A Square Crossed WWSS3A Square Crossed WWSS3B Square Crossed WWSS3B Square Crossed WWSS3C Square Crossed	WWSS1A         Crossed           WWSS1B         Square           Crossed         N41°28.106'           WWSS1C         Square           WWMWV1         Square           Crossed         N41°28.118'           Crossed         WWSS2A           Square         N41°28.114'           Crossed         WWSS2B           Square         N41°28.110'           Crossed         WWSS2C           Square         N41°28.105'           Crossed         WWSS3A           Square         N41°28.126'           Crossed         WWSS3B           Square         N41°28.123'           Crossed         WWSS3C           Square         N41°28.127'           Crossed         WWSS4           Square         N41°28.122'           Crossed         WWSS4	WWSS1A         Crossed Square Crossed         N41°28.108'         W74°22.702'           WWSS1B         Square Square Crossed         N41°28.106'         W74°22.705'           WWSS1C         Square Square Crossed         N41°28.104'         W74°22.704'           WWMW1         Square Square Square Crossed         N41°28.118'         W74°22.639'           WWSS2A         Square Squa	WWSS1A         Crossed         N41°28.108'         W74°22.702'         640           Crossed         N41°28.106'         W74°22.702'         640           WWSS1B         Square         N41°28.106'         W74°22.705'         676           Crossed         Square         N41°28.104'         W74°22.704'         669           WWSS1C         Square         N41°28.118'         W74°22.639'         610           Crossed         Square         N41°28.114'         W74°22.637'         636           WWSS2A         Square         N41°28.110'         W74°22.630'         650           Crossed         N41°28.105'         W74°22.621'         653           Crossed         N41°28.105'         W74°22.615'         663           WWSS3A         Square         N41°28.126'         W74°22.617'         669           WWSS3B         Square         N41°28.123'         W74°22.600'         686           WWSS3C         Square         N41°28.127'         W74°22.588'         669           Crossed         N41°28.122'         W74°22.581'         666           WWSS4         Square         N41°28.122'         W74°22.581'         666	WWSS1A         Crossed Square         N41°28.108'         W74°22.702'         640         41.46846667           WWSS1B         Square Crossed         N41°28.106'         W74°22.705'         676         41.46843333           WWSS1C         Square Square Crossed         N41°28.104'         W74°22.704'         669         41.46840000           WWSS1A         Square Square Square N41°28.118'         W74°22.639'         610         41.46863333           WWSS2A         Square Square N41°28.114'         W74°22.637'         636         41.46856667           WWSS2B         Square N41°28.110'         W74°22.630'         650         41.46850000           WWSS2C         Square N41°28.105'         W74°22.621'         653         41.46841667           Crossed WWSS3A         Square N41°28.126'         W74°22.615'         663         41.46876667           WWSS3B         Square N41°28.126'         W74°22.617'         669         41.46876667           WWSS3C         Square N41°28.123'         W74°22.600'         686         41.46871667           Crossed Square Square Square N41°28.127'         W74°22.588'         669         41.46878333           Crossed Square Square Square N41°28.122'         W74°22.581'         666         41.46870000	WWSS1A   Square   N41°28.108'   W74°22.702'   640   41.46846667   74.37836667   Crossed   Square   N41°28.106'   W74°22.705'   676   41.46843333   74.37841667   Crossed   Square   N41°28.104'   W74°22.704'   669   41.46840000   74.37840000   Crossed   Square   N41°28.118'   W74°22.639'   610   41.46863333   74.37731667   Crossed   Square   N41°28.118'   W74°22.639'   636   41.46856667   74.37728333   Crossed   Square   N41°28.114'   W74°22.637'   636   41.46856667   74.37728333   Crossed   Square   N41°28.110'   W74°22.630'   650   41.46850000   74.37716667   Crossed   Square   N41°28.105'   W74°22.621'   653   41.46841667   74.37701667   Crossed   Square   N41°28.107'   W74°22.615'   663   41.46845000   74.37691667   Crossed   Square   N41°28.126'   W74°22.617'   669   41.46876667   74.37695000   Crossed   Square   N41°28.126'   W74°22.617'   669   41.46876667   74.37695000   Crossed   Square   N41°28.123'   W74°22.588'   669   41.46878333   74.37646667   Crossed   Square   N41°28.123'   W74°22.588'   669   41.46878333   74.37646667   Crossed   Square   N41°28.127'   W74°22.588'   669   41.46878333   74.37646667   Crossed   Square   N41°28.127'   W74°22.588'   669   41.46878333   74.37646667   Crossed   Square   N41°28.122'   W74°22.588'   666   41.46870000   74.37635000   Crossed   Square   N41°28.122'   W74°22.581'   666   41.46870000   74.37635000   Crossed   Square   N